
Inspection of Biology and S1/S2 Science, Computing and Modern Languages Balfron High School Stirling Council

1. The Inspections

HM Inspectors carried out inspections of biology and S1/S2 science, computing and modern languages at Balfron High School. The departments inspected were chosen as part of a national sample of subjects taught in secondary schools. The visits took place in March 1999.

For each of the subjects, HM Inspectors visited classrooms to observe teaching, examined pupils' work and interviewed staff and pupils. They looked at accommodation and resources for learning. They assessed the methods used by the departments to assure the quality of learning and teaching.

The findings are based solely on the inspection of the three subject departments. They should not be assumed to apply to other departments in the school, or to the school as a whole. The school and education authority may, however, find it useful to consider the wider implications of this report for the school.

2. The School

Balfron High School has a roll of 829 pupils. The school serves a large rural catchment area in West Stirlingshire, including the villages of Killlearn, Strathblane and Balfron. Pupils' attendance was well above national levels.

3. Biology and S1/S2 Science

Accommodation, resources and staffing

Overall, accommodation for teaching was good. Laboratories were generally in a good state of repair. There was insufficient central storage space for equipment and chemicals. Some matters of health and safety were drawn to the attention of staff. Staff bases did not provide a good working environment. Overall, resources were in good supply. The provision of information and communications technology (ICT) should be improved.

The level of staffing was good. Technicians made a very good contribution to the work of the science departments.

Courses

The S1 science course had recently been revised to bring it into line with national 5-14 guidelines, but still needed to take more account of pupils' previous experience in primary school. The S1 course included a number of good features which now needed to be included in the separate science courses at S2. Learning support staff had provided helpful advice about S1 course materials. Biology courses at S3-S6 were very well designed and fully in line with arrangements for national examinations.

Learning and teaching

The quality of teaching in biology and S1/S2 science was good and sometimes very good. Teachers interacted well with pupils, both during whole-class teaching and practical work. However, pupils in the National Certificate (NC) module class spent too much time working on their own and should be taught more often as a class. Good quality homework was given regularly to all classes. Pupils were motivated in almost all classes and most responded well in a supportive environment.

Pupils experiencing learning difficulties received valuable help from their teachers and from learning support staff and supervisory assistants. In S1/S2, there was little evidence of tasks being matched to pupils' prior experiences or needs. Assessment at S1/S2 had been broadened to include knowledge and understanding and problem-solving but did not yet include investigative skills. Assessment in biology

was very well organised. Teachers had a very good knowledge of pupils' strengths and gave them good feedback about their progress.

Attainment

The following were features of pupils' attainment in S1/S2 science and biology.

- In S1 science, most pupils showed a good understanding of recent work. In S2 biology, chemistry and physics, most pupils were attaining well in classwork. However, many S2 pupils were capable of more demanding work.
- At S3/S4 almost all pupils performed well in classwork in Standard Grade biology. The proportion of pupils gaining a Credit award was more than double the national average over the last five years.
- In Higher Grade biology, most pupils had a good knowledge and understanding of recent work. The proportion of S5 pupils gaining A awards was more than three times the national average over the last five years.
- The uptake of NC modules was high. Most pupils were successful in completing all the learning outcomes.
- In Certificate of Sixth Year Studies (CSYS) biology, pupils showed a very good understanding of their projects. The uptake of CSYS biology was high. Almost all pupils obtained A-C passes.

The overall quality of pupils' attainment was good for S1/S2 science and very good for all S3-S6 biology courses.

Management and quality assurance

The principal teacher of biology was a highly effective leader with wide-ranging knowledge and skills. His teaching was a model of good practice. He managed his department very effectively, drawing on the considerable experience, skills and enthusiasm of his staff.

The principal teachers of biology, chemistry and physics shared responsibility for the management and development of the S1/S2 science course. They worked very well together as a team and provided clear direction for the department. Staff, including learning support staff, were deployed to good effect. Staff had participated in a good amount of staff development, much of which was related to targets in the departmental development plans. Almost all teachers had taken part in training sessions as part of the education authority's procedures for staff review.

Principal teachers used a range of approaches to evaluate the work of their departments. Pupils' views were occasionally sought about courses. A checklist had been issued to all science teachers and some of them had used this to evaluate their teaching. The principal teacher of biology made very effective use of examination results to identify ways of improving learning and teaching and pupils' attainment. Departmental development plans were good and identified key

priorities for biology and science. Most targets on the plans were being met.

Ethos

The ethos in biology and science was very good. Pupil and staff morale was high. Relationships amongst pupils and teachers were very positive. Teachers had high expectations of pupils' behaviour which was very good in almost all classes. Almost all pupils identified with the school through wearing appropriate school uniform.

4. Computing

Accommodation, resources and staffing

Overall, the quality of accommodation was good. However, rooms were not located together and this reduced the effectiveness of the department. Some fixtures and fittings and most of the computer systems were in need of replacement. Modern networked computers had been purchased to upgrade one room. There was a very good supply of textbooks and other learning materials. Staff used available resources well. Pupils' work was displayed to good effect.

The department had sufficient qualified and experienced teachers. However, technician support was inadequate.

Courses

The S1/S2 course developed good practical ICT skills, and covered much, but not all, of the national 5-14 guidelines. The department had successfully linked its teaching to the use of information and

communications technology (ICT) in English and mathematics, but not to other subjects. Standard Grade, Higher Grade and NC courses were good and met national requirements. National materials were used to good effect in course design.

Learning and teaching

The quality of teaching was good overall. Most lessons were well planned and taught. Homework tasks were helpfully linked to classroom activities. However, there were inconsistencies in the marking of homework. Most pupils showed good application to practical tasks and carried them out with interest and enthusiasm. At S3/S4 and S5/S6, some pupils were finding difficulty with the theory elements. Teaching approaches were generally well-judged to meet pupils' needs. Some pupils with specific learning difficulties required additional support. Assessment was regular and was used effectively by teachers to inform pupils of their progress. Reporting to parents was systematic and effective. However at S2, assessment and reporting did not follow national advice.

Attainment

The following were features of pupils' attainment in computing.

- Almost all pupils in S1/S2 performed well in practical computing tasks.
- In Standard Grade computing, the majority of pupils performed well in classwork. Some were finding it difficult to complete coursework folios. The percentage of pupils achieving

Credit awards was consistently above the national average. However, pupils generally performed less well in computing than in their other subjects.

- In Higher Grade computing, most pupils were not achieving appropriate standards in their coursework. Presentations had dropped steadily over the last three years. The proportion of pupils gaining A-C awards was variable but was low in 1998.
- Pupils taking NC modules were making good, and sometimes very good, progress. The uptake of NC modules was high and, over the last three years, there had been a steady improvement in the success rate.

Overall, the quality of attainment in computing was good, with the exception of Higher Grade where it was only fair.

Management and quality assurance

The principal teacher showed a high level of professional competence and was up-to-date in all aspects of the subject. He was strongly committed to the department and, more generally, to promoting and supporting the development of ICT throughout the school. Staff deployment was well planned. Teachers of computing should meet more regularly to discuss best practice and to share in the development of departmental priorities. Teachers had taken part in staff development, linked mainly to Higher Still. Staff had been trained in the education authority's

procedures for staff review, but none had yet been reviewed.

The principal teacher met with senior management annually to discuss departmental progress, including examination results. The deputy headteacher normally met with the department on a regular basis but his part-time secondment to the education authority had reduced the opportunity for such contacts. Teachers had been provided with a self-evaluation checklist for teaching, but this was not being used systematically. The principal teacher used departmental meetings to review course procedures and to introduce improvements. Concerns about examination results had led to a study of what might be done by staff to improve teaching and learning. The department's development plan linked well with school priorities, but did not refer explicitly to ways of improving pupils' attainment.

Ethos

The ethos of the department was good. Relationships between pupils and teachers were good and sometimes very good. Teachers had appropriate expectations of pupils' behaviour and pupils co-operated well to bring about a good and mainly purposeful working atmosphere. The principal teacher valued pupils' contributions in class and used praise to good effect.

5. Modern Languages

Accommodation, resources and staffing

Overall, the accommodation was good, although classroom space and storage were limited. The department had a good range of modern textbooks and other materials. ICT was not well developed. The department displayed pupils' work well. There were sufficient, well-qualified teaching staff.

Courses

The S1/S2 courses in French and German were good and built well on the primary language programme. Courses from S3-S6 met most of the requirements of national examinations. All programmes included a good emphasis on knowledge of grammar, but more systematic attention should be given to the development of pupils' speaking and writing skills. The syllabi for all language programmes were not yet fully developed.

Learning and teaching

The quality of learning and teaching ranged from fair to very good. The overall quality was good. In most lessons, teachers related well to pupils, provided clear explanations and supported their learning well. There were some good examples of direct teaching. However, teachers did not always pay sufficient attention to the pace and balance of lessons. Some teachers shared lesson objectives with pupils, a practice which should be more widely adopted. Homework was provided regularly. Most pupils were well motivated, but were not always actively involved in their learning. Pupils required more opportunities to develop their independent learning skills. In general, more able pupils

required greater challenge. Assessment arrangements were appropriate at all stages.

Attainment

The following were features of pupils' attainment in modern languages.

- At S1/S2, most pupils achieved appropriate standards in their coursework in listening, speaking, reading and writing.
- At Standard Grade, most pupils attained appropriate standards in coursework in listening and reading. The majority did so in speaking and writing. In most years, the percentage of pupils gaining Credit awards was above the national average in French, and well above the national average in German. Pupils performed consistently less well in French and German writing than in their other subjects.
- At S5/6, most pupils attained appropriate standards in their coursework. Over the last three years most Higher Grade pupils had obtained A-C passes in French and German.
- At CSYS, all pupils presented in French and German over the last three years gained an A-C pass.
- Almost all pupils presented for NC module courses in French, German and Italian had been successful.

Pupils' overall performance was broadly good at all stages. However, teachers should have higher expectations of pupils' achievement, particularly in speaking and writing.

Management and quality assurance

The principal teacher's leadership had some strengths, but also clear weaknesses. She was strongly committed to the teaching of modern languages and showed a good knowledge of national priorities in language learning. However, she paid insufficient attention to the strategic and operational management of the department. Teachers had too few opportunities to contribute to the development of departmental policies and practices. The principal teacher needed to listen to the views of staff and involve them more in improving the quality of learning and teaching and raising pupils' attainment in speaking and writing. Teachers had undertaken appropriate staff development. Some staff had been trained in the education authority's procedures for staff review but, as yet none had been reviewed.

The department operated within the school's system for evaluating its work. The headteacher met with the principal teacher to discuss the department's results in national examinations and the achievement of targets in the development plan. However, the principal teacher did not always follow up agreed targets systematically and needed to be more rigorous in her monitoring and evaluation of the department's work. The departmental development plan was fair. It was

generally sound in structure but did not have a clear focus on improving learning and teaching and raising pupils' attainment. Generally, the department had made good progress in implementing its most recent targets.

Ethos

The ethos within the department was fair, but with some strengths. Relations between staff and pupils were good. Teachers worked hard to introduce pupils to the foreign culture through visits and exchanges. However, staff morale was currently low and teamwork was under-developed.

6. Key Strengths

The key strengths of the subjects inspected were:

- generally well planned and organised courses, particularly at S3-S6;
- very good interactive teaching in some classes in biology, S1/S2 science and modern languages;
- valuable assistance provided by learning support staff in biology and S1/S2 science;
- consistently high uptake and very high standards of attainment in biology courses at all levels;
- relationships between pupils and teachers were good and often very good;
- the strong contribution of the principal teacher of computing to the development of ICT throughout the school;
- principal teachers had very good and up-to-date knowledge of their subjects; and
- very good departmental leadership in biology and S1/S2 science.

7. Main points for action

The school and education authority should act on the following recommendations.

- Resources for ICT should be improved. Staff in the modern languages and science departments should continue to develop the use of ICT to broaden their approaches to learning and teaching.
- Departments should continue to develop their S1/S2 courses, as described in the report, to bring them fully into line with national 5-14 guidelines, including assessing pupils' progress and reporting to parents.
- Further steps should be taken to match tasks and activities to pupils' individual needs. In particular, more able pupils required a greater degree of challenge

at S2 in science and at all stages in modern languages.

- The school and the departments inspected should act on the individual weaknesses in courses and learning and teaching identified in this report.
- The departmental development plans for computing and modern languages should be revised to ensure that targets focus more clearly on improving learning and teaching and raising pupils' attainment.
- Senior managers and principal teachers should monitor and evaluate the work of departments more systematically to identify and extend best practice in learning and teaching and departmental management. Staff should continue to promote self-evaluation using performance indicators along the lines recommended in the HMI publication, *How Good is Our School?*

After one year, HM Inspectors will invite the school and education authority to report on progress in meeting these recommendations. They might, thereafter, visit the school again to assess, at first hand, the progress being made.

Copies of this report have been sent to the headteacher and school staff, the Director of Education, local councillors and the Member of Parliament. Subject to availability, further copies may be obtained free of charge from the office at the address below.

If you want to make a complaint about any aspect of the inspection or about this report, you should write in the first instance to the HM Chief Inspector whose address is given below. If you are unhappy with the response, you will be told in writing what further steps you may take.

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